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NOTICE OF ALLOWANCE AND FEE(S) DUE

46917 7590 07/13/2009

KONRAD RAYNES & VICTOR, LLP.
ATTN: IBM37
315 SOUTH BEVERLY DRIVE, SUITE 210
BEVERLY HILLS, CA 90212

EXAMINER

CAMPOS, YAIMA

ART UNIT

PAPER NUMBER

2185

DATE MAILED: 07/13/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,061

04/09/2004

Theresa Mary Brown

TUC920030052US1

2087

TITLE OF INVENTION: METHOD FOR RESOURCE RESERVATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/13/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

46917 7590 07/13/2009

KONRAD RAYNES & VICTOR, LLP.
ATTN: IBM37
315 SOUTH BEVERLY DRIVE, SUITE 210
BEVERLY HILLS, CA 90212

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,061	04/09/2004	Theresa Mary Brown	TUC920030052US1	2087

TITLE OF INVENTION: METHOD FOR RESOURCE RESERVATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/13/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
CAMPOS, YAIMA	2185	711-170000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,061	04/09/2004	Theresa Mary Brown	TUC920030052US1	2087
46917	7590	07/13/2009	EXAMINER	
KONRAD RAYNES & VICTOR, LLP. ATTN: IBM37 315 SOUTH BEVERLY DRIVE, SUITE 210 BEVERLY HILLS, CA 90212			CAMPOS, YAIMA	
			ART UNIT	PAPER NUMBER
			2185	
DATE MAILED: 07/13/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1168 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1168 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/822,061	BROWN ET AL.	
	Examiner	Art Unit	
	YAIMA CAMPOS	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/19/09.
2. ☒ The allowed claim(s) is/are 1-3,6,7,10-12,31-33,36-43 and 46-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/Yaima Campos/
Examiner, Art Unit 2185

DETAILED ACTION

1. As per the instant Application having Application number 10/822,061; the examiner acknowledges the applicant's submission of the Amendment filed on May 19, 2009.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given in a telephone interview with Janaki K. Davda (Reg. 40,684).

4. The application has been amended as follows:

Claim 1(Currently Amended)

A method for allocating resources, comprising:

before receiving a request from a super process that needs resources from a first cluster and a second cluster,

at the first cluster, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels; and

at the second cluster, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels; and

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at the first cluster, upon receiving a request for allocation of resources from the super process, determining a depth level from which to allocate resources by:

determining whether the request is a remote request from the second cluster or a local request from the first cluster; and

in response to determining that the request is the remote request and that resources are being allocated from a current depth level to the super process at the second cluster,

determining that the depth level at the first cluster is a next depth level that is an increment from the current depth level at the second cluster, wherein each time the super process issues an inter cluster request, the depth level is incremented by one until reaching a maximum depth level to avoid a deadlock situation;

attempting to allocate a reserved pool from the determined depth level at the first cluster;

in response to the attempted allocation of the reserved pool being unsuccessful for the remote request, attempting to allocate resources from an unreserved pool; and

in response to the attempted allocation from the unreserved pool being unsuccessful, placing the request in a data structure to wait for the reserved pool.

Claim 4 (Cancelled)

Claim 5 (Cancelled)

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Claim 7 (Currently Amended)

The method of claim 1, further comprising: determining that the request is the local request and that a reserved pool at a particular depth level has been allocated to the super process at the first cluster; and allocating a resource from the reserved pool at the first cluster.

Claim 31 (Currently Amended)

An article of manufacture comprising a computer readable storage medium storing code for allocating resources, wherein the code when executed by a processor of a computer causes operations to be performed, the operations comprising:

before receiving a request from a super process that needs resources from a first cluster and a second cluster,

at the first cluster, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels;

at the second cluster, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels; and

at the first cluster, upon receiving a request for allocation of resources from the super process, determining a depth level from which to allocate resources by:

determining whether the request is a remote request from the second cluster or a local request from the first cluster; and

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in response to determining that the request is the remote request and that resources are being allocated from a current depth level to the super process at the second cluster,

determining that the depth level at the first cluster is a next depth level that is an increment from the current depth level at the second cluster, wherein each time the super process issues an inter cluster request the depth level is incremented by one until reaching a maximum depth level to avoid a deadlock situation;

attempting to allocate a reserved pool from the determined depth level at the first cluster; in response to the attempted allocation of the reserved pool being unsuccessful for the remote request, attempting to allocate resources from an unreserved pool; and

in response to the attempted allocation from the unreserved pool being unsuccessful, placing the request in a data structure to wait for the reserved pool.

Claim 34 (Cancelled)

Claim 35 (Cancelled)

Claim 37 (Currently Amended)

The article of manufacture of claim 31, wherein the operations further comprise:
determining that the request is the local request and that a reserved pool at a particular depth level has been allocated to the super process at the first cluster; and allocating a resource from the reserved pool at the first cluster.

Claim 41 (Currently Amended)

A system including circuitry for allocating resources, wherein the circuitry is capable of causing operations to be performed, the operations comprising:

before receiving a request from a super process that needs resources from a first cluster and a second cluster,

at the first cluster and, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels; and

at the second cluster, allocating reserved resources to two or more depth levels, wherein the reserved resources form one or more reserved pools at each of the two or more depth levels; and

at the first cluster, upon receiving a request for allocation of resources from the super process, determining a depth level from which to allocate resources by:

determining whether the request is a remote request from the second cluster or a local request from the first cluster; and

in response to determining that the request is the remote request and that resources are being allocated from a current depth level to the super process at the second cluster,

determining that the depth level at the first cluster is a next depth level that is an increment from the current depth level at the second cluster, wherein each time the super

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process issues an inter cluster request the depth level is incremented by one until reaching a maximum depth level to avoid a deadlock situation;

attempting to allocate a reserved pool from the determined depth level at the first cluster;

in response to the attempted allocation of the reserved pool being unsuccessful for the remote request, attempting to allocate resources from an unreserved pool; and

in response to the attempted allocation from the unreserved pool being unsuccessful, placing the request in a data structure to wait for the reserved pool.

Claim 44 (Cancelled)

Claim 45 (Cancelled)

Claim 46 (Currently Amended)

The system of claim ~~[[44]]~~ 41, wherein the resources are task control blocks.

Claim 47 (Currently Amended)

The system of claim 41, wherein the operations further comprise: determining that the request is the local request and that a reserved pool at a particular depth level has been allocated to the **super** process at the first cluster; and allocating a resource from the reserved pool at the first cluster.

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REASONS FOR ALLOWANCE

5. Per the instant office action, claims **1-3, 6-7, 10-12, 31-33, 36-43 and 46-50** are considered as allowable subject matter. The following is a statement of reasons for the indication of allowable subject matter:

6. As per **claims 1, 31 and 41**

The primary reasons for allowance of claims **1, 31 and 41** in the instant applicant is the claimed combination with the inclusion in this claim of the limitation of a method, article of manufacture and system for allocating resources comprising “... before receiving a request from a super process that needs resources from a first cluster and a second cluster... the first cluster, allocating reserved resources to two or more depth levels... the second cluster, allocating reserved resources to two or more depth levels... at the first cluster, upon receiving a request for allocation of resources from the super process, determining a depth level from which to allocate resources by... in response to determining that the request is the remote request and that resources are being allocated from a current depth level to the super process at the second cluster, determining that the depth level at the first cluster is a next depth level that is an increment from the current depth level at the second cluster, wherein each time the super process issues an inter cluster request, the depth level is incremented by one until reaching a maximum depth level to avoid a deadlock situation... in response to the attempted allocation of the reserved pool being unsuccessful for the remote request, attempting to allocate resources from an unreserved pool; and in response to the attempted allocation from the unreserved pool being unsuccessful, placing the request in a data structure to wait for the reserved pool.” The prior art of record neither anticipates nor renders obvious the above-recited combination.

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**** Wherein a “super process” as claimed has been defined as “A super process may be described as a process in one cluster that requires sub-processes obtaining resources on other clusters to accomplish its processing, but which is itself not a sub-process” in page 7, paragraph 0022 of Applicant’s Specification.*

7. Dependent **claims 2-3, 6-7, 10-12, 32-33, 36-40, 42-43 and 46-50** are allowable at least for the reasons recited above including all the limitations of the allowable independent base claim upon which they depend.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

DIRECTION OF FUTURE CORRESPONDENCES

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaima Campos whose telephone number is (571)272-1232. The examiner can normally be reached on Monday to Friday 8:30 AM to 5:00 PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Sanjiv Shah can be reached on (571)272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 24, 2009

/Yaima Campos/
Examiner, Art Unit 2185

/Sanjiv Shah/

Supervisory Patent Examiner, Art Unit 2185